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ON AIRLAND BATTLE AND THE
OPERATIONAL MANEUVER GROUP

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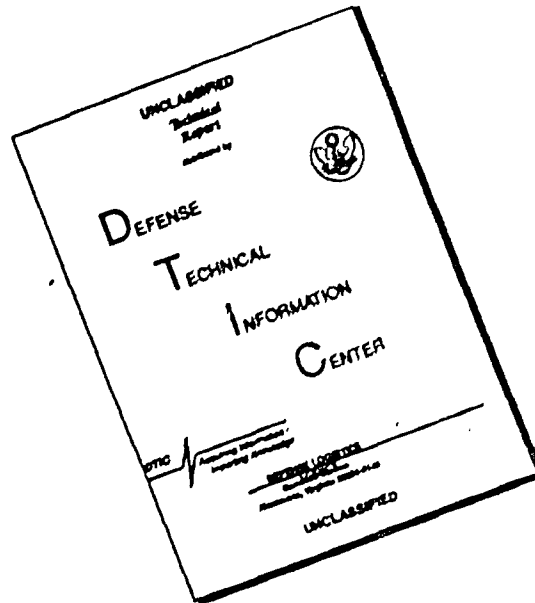
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DD Form 1473, JUN 86

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SECURITY CLASSIFICATION OF THIS PAGE

Unclassified

**CONVENTIONAL FORCE MODERNIZATION AND THE
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HISTORICAL REFLECTIONS ON AIRLAND BATTLE
AND THE OPERATIONAL MANEUVER GROUP**

by

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Conventional Force Modernization and the Asymmetries of
Military Doctrine: Historical Reflections on AirLand Battle
and the Operational Maneuver Group¹

Jacob W. Kipp

One of the paradoxes of the superpower rivalry over the last four decades has been the trend towards the militarization of a political-ideological competition and the simultaneous exercise of restraint in the employment of expanding and increasingly sophisticated arsenals. An evolving deterrence theory, which sees the postwar environment shaped by the reality of weapons of mass destruction, has dominated Western international security studies.² In part, this may be the result of the fact that within the context of superpower relations such weapons of mass destruction have exercised a restraint upon a trend toward systemic war, evident over the preceding century as combat became more industrial, involved the mobilization of larger numbers of the population, took on greater geographic extent, intensity, and lethality and obliterated the distinctions between combatant and noncombatant. War in this systemic form reached its apogee in 1941-1945 on the Eastern Front, where it assumed the character of a Vernichtungskrieg, voina na unichtozhenie or war of annihilation.³

Deterrence theory has identified a number of factors in the postwar international environment which have contributed to this

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check upon the all-out employment of military power by one of the superpowers and its allies against the other. In addition to the acquisition of arsenals of weapons of mass destruction and effective inter-continental delivery systems, these include the emergence and continuation of a bipolar international environment and a shared assumption within the polities of both coalitions that no matter how intense the ideological and political competition between the powers, systemic war would result in mutual annihilation, making a Vernichtungskrieg a suicide pact.⁴

At the same time the pace of technological change has accelerated the process of military modernization, reduced the life cycle of weapons systems, and forced military institutions to adapt their force structures, organizations and missions to new circumstances. Recent developments in military technologies have brought about increased interest in war-fighting capabilities and conventional force modernization. Conventional deterrence has become a topic of scholarly research.⁵ These developments have complicated deterrence and should stimulate comparative studies of the respective national security systems, military institutions, and doctrines. The interactions and interconnections between those systems, institutions and concepts are complex and can best be grasp within their historical context. This essay will employ an historical approach to analyze the evolution of US and Soviet military doctrine, particularly that of their respective ground forces, over the last four decades.

The acquisition of atomic weapons and the subsequent expansion of those arsenals in the immediate postwar period did not negate conventional military power. The new weapons did, however, place old means in a new context. As late as 1949 Vannevar Bush, Director of the US Office of Scientific Research and Development during World War II, could argue that the atomic bomb had not fundamentally reshaped the nature of total war, nor were such weapons likely to do so in the immediate future.⁶ The pace of scientific-technical development was, however, much more rapid than expected, and since the early 1950s military planners and statesmen in the West and East have been struggling to come to grips with this process of innovation as it affects the development, procurement, deployment and doctrinal use of their respective arsenals. In the US and Soviet militaries this has been a process of adapting distinctive national military doctrines to military-political and military-technological changes.

In Western usage military doctrine, as Barry Posen has pointed out, is a sub-system of national grand strategy dealing with the construction, organization and employment of military means.⁷ In Anglo-American usage military doctrine describes the armed forces' or a single service's understanding of the nature, theory and practice of war. As officially established views, military doctrine prescribes the general principles and methods by which units fight in concert with other services and allies. Military doctrine lays the foundation of subordinate doctrine, materiel

development, training and professional education. In the West the political leadership sets national strategy, and military doctrine is subordinated to those missions and constraints, which arise from national strategy, set within a democratic polity. Thus, military doctrine has a political and societal context. This leads to the conclusion that military doctrine and voennaia doktrina are not cognates.

Voennaia doktrina is, in fact, a much broader in its implications. Reflecting the application of Marxism-Leninism to the laws of war and guided by the military policy of the Communist Party, voennaia doktrina is nothing less than 'the nation's officially accepted system of scientifically founded views on the nature of modern wars and the use of the armed forces in them, as well as the requirements arising from these views regarding the country and its armed forces being made ready for war'.⁸ Soviet military doctrine has two mutually interconnected sides: the military-political and the military-technical, with the dominance of the former over the latter. Seen through the prism of Marxism-Leninism, the basic tenets of voennaia doktrina are set by the nation's socio-political system, level of economic, scientific and technological development and the armed forces' combat materiel, with due regard to the conclusions of military science and the nature of the threat posed by the probable enemy. Voennaia doktrina stands above and shapes strategy, which is the highest level of military art.

Voennoe iskusstvo (military art), which embraces strategy,

operational art, and tactics, comes much closer to the Western meaning of military doctrine as applied to the general principles and methods by which units fight in concert with other services and allies. However, in the Soviet case voennaia doktrina is unified, embracing both civil and military preparations for war, and imposing upon voennoe iskusstvo much greater unity among the branches of the armed forces.

The Soviet General Staff, which Marshal Shaposhnikov called 'the brain of the army', provides both the institutional and intellectual unification through its efforts to use military science to determine the nature of future war and guide the preparations and combat readiness of the armed forces toward that end. The General Staff is thus at the very heart of the Soviet military system. This situation has its roots in Russian military history. The combination of an autocratic political culture, social instability, and the emergence of industrial war led some Russian general staff officers [genshtabisty] to call for a unified military doctrine (edinaia voennaia doktrina) in the wake of defeat and revolution during the Russo-Japanese War. The experience of World War I and the Civil War reinforced such calls, while the Great Patriotic War as a Vernichtungskrieg confirmed the necessity of such a centralized system.⁹ Marxism-Leninism with its emphasis upon ideological struggle between an emerging socialist world order and a dying capitalist one reinforced this logic. This has encouraged a militarization of society but not militarism, which might challenged the political

hegemony of the Communist Party.¹⁰

In the four decades since the end of World War II these very different military systems have had manage major doctrinal shifts at roughly ten year intervals. In each case the systems dealt with change by a process of adaptation within its particular societal and institutional context, while at the same time responding to what it perceived to be the salient features of the threat, i. e. the other superpower's military system. In each case new concepts, which would shape doctrine in the next era, made their appearance in the military literature. The current debate regarding the military-political implications of operational-maneuver-groups, AirLand Battle and Follow-On-Forces-Attack (FOFA), marks the beginning of another doctrinal era, defined by a resurgent interest in conventional forces.

I. The Postwar Era, 1945-1953

In the immediate postwar period the US and Soviet Armies each engaged in assessing the lessons of World War II. Their very distinct socio-political orders, economic capabilities, geostrategic concerns, historical experiences, and ideological assumptions assured that the lessons learned would be radically different. Soviet territorial gains and political advances did not alter the reality of the Soviet Union's geostrategic situation as a Eurasian continental power. The considerable destruction suffered by the national economy made demobilization

an imperative. For Stalin, Soviet acquisition of nuclear weapons and the means of delivery was a national priority. Thus, the Soviet Army had to confront a scarcity of resources during the period of economic recovery. These developments had not, however, called into question the logic of a large conventional military force. For the Soviet Army the hard-won campaigns in Eastern Europe and the Far East had set an agenda for the further mechanization of Soviet ground forces, the improvement of their tactical and operational mobility, and the augmentation of the combat power of their combined arms formations.¹¹

For the US Army, the lessons were not so clear and the problems of combat organization not so easily addressed. While US society emerged from World War II as an unchallenged industrial giant, the new globalism which shaped US foreign policy did not immediately translate into a new national grand strategy. The US atomic monopoly, the prestige of strategic airpower, and the geostrategic realities of the United States as a maritime power did not provide a definite role for ground combat power. The creation of the Department of Defense and the emergence of the Air Force as an independent service left the issue of joint operations, especially air-ground cooperation, unresolved at the service level. Rapid demobilization and a lack of clarity as to where and under what circumstances US ground forces would be committed to combat made it difficult for the Army to address lessons learned above the tactical level. The outbreak of the Korean War and the commitment of US forces did lead US commanders

to conclude that US forces would fight outnumbered and would have to rely upon firepower to destroy enemy forces.¹² Following the onset of the Cold War and the organization of NATO in 1949 General Dwight D. Eisenhower, its first Supreme Commander, proposed a force of 96 divisions and 9000 aircraft for the defence of Central Europe. NATO's ministers, however, rejected such a posture as infeasible and too costly.

II. The Scientific-Technical Revolution in Military Affairs

From the early 1950s, when both powers almost simultaneously acquired the ability to produce nuclear weapons, military planners in both countries turned their attention to the integration of nuclear weapons and conventional forces. Following the death of Stalin Soviet military theorists began to address the problem of future war, in which such means of mass destruction were employed. In the past doctrinal change in response to new weapons systems had begun at the tactical level and gradually extended until it embraced strategic adjustments. Nuclear weapons and their delivery systems seemed to negate that process. Discussions in Voennaia mysl' and within study groups at the Voroshilov General Staff Academy led to the conclusion that a future war would be a global, thermonuclear contest between socialism and capitalism. Its salient features would be radically different from those of the Great Patriotic War and would put a premium upon integrated national leadership at the strategic

level prior to and following the initiation of hostilities.¹³ In retrospect, it would appear that Soviet military planners overestimated the extent to which nuclear weapons had caused a break with the past. Colonel General M. A. Gareev has argued that in evaluating the impact of nuclear weapons the theorists went to extremes in dismissing the relevance of existing military theory.¹⁴

Soviet military planners approached this future war with a realistic assessment of the military-political and military-technical correlation of forces during the next decade. US strategic capabilities far exceeded those of the USSR. At the same time the political leadership emphasized that socio-political changes were affecting the military-political correlation of forces in favor of socialism so that systemic war was not fatally inevitable. Soviet military planners thus faced a situation where the long-range trends affecting the political competition between the camps were seen to be shifting in their favor, although the military-technical situation clearly favored the West. This situation promoted both prudence and confidence.¹⁵

During this period of strategic inferiority Soviet military planners assumed that deterrence (sderzhivanie) of such a systemic conflict went hand-in-hand with war-fighting capabilities under the assumption that the risks of deterrence failure demanded a viable defence. This has been called 'deterrence by punishment' and contained a good measure of Clausewitzian military-political realism, revised in light of

Marxism-Leninism's vision of war as a social phenomenon.¹⁶ A state led by men who had fought through the disasters of 1941 could hardly assume anything else. These war-fighting capabilities were, however, shaped by the scientific-technical revolution in military affairs. The Soviet Armed Forces underwent substantial changes in structure and missions.

Soviet ground forces were seriously challenged for preeminence within the military establishment. Under Khrushchev the revolution in military affairs was narrowly focused upon the new nuclear-tipped rockets and interpreted to mean that conventional forces were of declining value. The budgetary requirements of those branches which were to play a decisive role in strategic operations, i. e., the newly formed Strategic Rocket Forces and the National Air Defense Forces (PVO Strany) received top priority. Long-Range Aviation, which had received substantial attention in the postwar decade, found its strategic role preempted. Soviet naval forces under Admiral Sergei Gorshkov were reconfigured to support such strategic operations, and large-scale shipbuilding programs for surface combatants were canceled. The Soviet Army faced cutbacks in manpower, as the government struggled with a demographic crisis, which affected the work force by the early 1960s.¹⁷

The Soviet General Staff, although led by front and army commanders, oversaw this transition. The collection of authors led by Marshal V. D. Sokolovsky, Chief of the General from 1952 to 1960, produced a work, which broke new ground. Voennaya

strategiia, which appeared in 1962, was the first work on strategy by a Soviet officer since A. A. Svechin had addressed the topic in 1926. The Sokolovsky volume radically redefined the nature of future war. Since the development of the theory of consecutive deep operations in the late 1920s Soviet military theory had assumed that systemic war over large theaters of military action would require a succession of deep operations to destroy the enemy's forces in the field and eliminate his will to resist. Arsenals of nuclear weapons and ballistic missiles seemed to negate this assumption of a long war.¹⁸

Some General Staff officers, as The Penkovsky Papers suggest, were uneasy with this one-sided emphasis on strategic capabilities and called for a reshaping of tactics and operational art in light of nuclear weapons.¹⁹ The fact that Voennaia strategiia went through three editions between 1962 and 1968 suggests the amount of ferment affecting Soviet military circles during the period.²⁰ The appointment, removal, and then reappointment of Marshal M. V. Zakharov as Chief of the General Staff during Khrushchev's last years in power strengthens this impression. During Zakharov's second tenure, i. e., after the Cuban Missile Crisis, the Soviet military press turned its attention to the architects of the theory of deep operations, including the victims of Stalin's purge of the military.²¹ This and other events signaled an end to the Khrushchevian definition of the scientific-technical revolution in military affairs as narrowly confined within the bounds of strategic nuclear weapon

systems.

On the US side, in the aftermath of Korea national grand strategy shifted towards the threat of the use of nuclear weapons for general deterrence. The adoption of 'Massive Retaliation' as a defence posture drove military procurement toward the acquisition of strategic delivery systems and fostered inter-service competition for a role in this central area of national military policy.²² The Eisenhower Administration sensed that public opinion would not accept the large-scale commitment of ground forces in another limited war and so emphasized the acquisition of strategic and tactical nuclear weapons. Within NATO, the Administration accepted an alliance posture of 26 divisions, 1400 combat aircraft and 15000 tactical nuclear weapons. US ground forces were reorganized for the nuclear battlefield. The Pentomic Division of 1956 represented the US Army's attempt to create a tactical formation with cellular structure, based on five battle groups, using improved firepower, mobility and command and control to defeat a numerically superior foe. This shift, like that in the Soviet Union, inaugurated a period of doctrinal ferment, precisely at a time, 1956-1959, when the size of the standing army was being reduced.²³

Global security concerns and a recognition of the possibility of the engagement of forces across the spectrum of conflict led to internal criticism of the Pentomic concept. Even prior to the Kennedy Administration, proponents of a shift away from the nuclear battlefield as the standard form of future combat had

made flexibility their watchword. These concerns fit in well with the Kennedy Administration's desire to separate strategic nuclear warfare from other kinds of combat on the assumption that strategic nuclear forces could not provide extended deterrence against the broad range of threats around the globe. At the same time Secretary of Defense McNamara was critical of efforts to substitute tactical nuclear weapons for conventional military power.²⁴

By the early 1960s US and Soviet ground forces had both passed through a period when strategic nuclear weapons had seemed about to transform them beyond recognition, bringing about a radical break with past doctrine. The paths taken by each army in the following period were, however, radically different. In the Soviet case historical experience drawn from the Great Patriotic War was employed to recast the tactics and operational art of the Soviet Armed Forces on the modern battlefield. In the US Army the Vietnam experience refocused doctrinal concerns for a decade. In the Soviet case this process embodied an integration of military theory with the rich practical experience of the Great Patriotic War and a reassertion of the claims of continuity in the face of radical technological developments. For the US Army, the present demands of combat in a distant guerrilla war absorbed its energy, resources, and intellectual capital.

III. The Resurgence of Conventional Military Forces, 1963-1973

As originally envisioned, 'Flexible Response' was intended to provide a range of military options which would fit an expanding set of global security requirements. Much attention went to unconventional warfare and Special Forces.²⁵ The cornerstone of 'Flexible Response' in the US Army was, however, the Reorganized Objectives Army Division (ROAD 1965), which was first presented as a concept in the spring of 1961. ROAD was designed to fight in both a nuclear and conventional environment. Mobility and dispersion dominated tactics, while infantry forces were further mechanized. These improvements were designed to permit the ROAD to function conventionally on a battlefield where nuclear weapons might be used at any time.²⁶

In 1967 the Johnson Administration was successful in getting NATO to adopt 'Flexible Response' as alliance strategy. In the European context, however, the concept took on a particular meaning. The US assumption had been that 'Flexible Response' would promote the acquisition of additional conventional forces to make conventional deterrence a viable alternative for the alliance. As adopted, 'Flexible Response' translated into the possession of sufficient conventional military power to mount a forward defense along the Inter-German Border to meet a Soviet/Warsaw Pact offensive without immediate recourse to tactical-theater nuclear weapons. Inter-Allied discussions, which highlighted distinct, national defence requirements and budgetary constraints, resulted in this compromise solution. So long as US strategic superiority was not open to question, the issue of

conventional sufficiency remained one of buying time for political maneuvering after the initiation of hostilities. NATO, as a defensive alliance and coalition of sovereign states, could agree upon the need for sufficient military power to deter aggression but was intentionally unclear regarding its war-fighting role, should deterrence fail. Should hostilities be imposed upon the alliance, its members were agreed upon modest military objectives, i. e., the restoration of the Inter-German Border.²⁷ In the 1960s, Gaullist reservations aside, the dominant assumption for US and NATO planners was that US strategic superiority made linkage between conventional, theater-nuclear, and strategic nuclear forces into a credible deterrent.²⁸

A number of trends over the next decade undermined that assumption. US involvement in and commitments to the War in Vietnam shifted the US defence posture, leading to an imbalance of budgetary expenditures and resource allocations in support of the effort in Southeast Asia but at the expense of commitments elsewhere. Internal divisions within the US polity eroded the postwar consensus supporting US global security commitments and undercut support for defence. The political fallout of Vietnam strained US-European relations, while the expansion of the Soviet strategic arsenal in the second half of the decade to a level approaching parity contributed to a growing unease by the first years of the next decade regarding the viability of linkage as it had been understood in NATO.

The War in Vietnam brought its own impulse for doctrinal change to the US Army. The nonlinear nature of the conflict, the difficulty of identifying and fixing the opponent, the peculiarities of the theater, its distance from the United States, and the nature of Vietnamese society prompted changes in doctrine. The war was fought at the small unit level. Firepower, attrition and the desire to keep US combat losses as low as possible dominated US tactics. Although large-scale operations were mounted in support of the pacification program, US commanders found it difficult to identify and attack the enemy's center of gravity, and as a result the war lacked operational coherence. New types of operations based upon the use of airmobile forces emerged: 'search and destroy, clearing and securing'.²⁹

America's longest war had a profound impact upon the Army that fought the conflict. By the early 1970s Army leadership recognized that there were substantial problems with morale, leadership, and training. Military Reformers were particularly concerned about the impact which Vietnam was having on the place of the military in American society. A painful process of deep introspection and adjustment began. The shift from a conscript to an all-volunteer military marked one of the most profound changes in the US military establishment to emerge as a result of Vietnam.³⁰

After a decade of intense preoccupation with tactical and doctrinal concerns shaped by the fighting in Vietnam the US Army

returned its attention to the problem of mechanized combat in Europe. The Vietnam experience provided the subtext to the Army's approach to its role in NATO. Although a NATO/WTO conflict was considered much less likely than another peripheral war fought against insurgents , Army leadership decided to address the doctrinal requirements of such a conflict on the grounds that such a war would represent the gravest threat to US national security.³¹

While their US counterparts were caught up in Vietnam, Soviet Army officers were in the process of shifting their paradigm of future war from one dominated by the immediate and massive use of nuclear weapons to one, which included the possibility of an initial non-nuclear phase. The Soviet military press began to address the problem of combined arms combat on a nuclear battlefield. Historical experience from the Great Patriotic War was emphasized in the adaption of Soviet ground forces to the demands of combat and operations. Soviet officers turned their attention to the conduct of offensive operations in the initial period of war. Surprise figured prominently in the recasting of operational art and tactics to make possible deep, swift offensives, which relied upon the exploitation of nuclear fires. As Chief Marshal of Tank Forces P. Rotmistrov pointed out, 'In the initial period of a nuclear-rocket war the role of tank forces will be quite significant.' Modern tank forces possessed much greater combat capabilities than those of World War II and could be employed on the main axes of land theaters of military

action [TVD]. Tank forces were well suited for rapid advances through regions subjected to weapons of mass destruction and so could be employed decisively in offensive operations in conjunction with rocket troops, aviation, and airborne landings in order to seize key objectives (regions) in the enemy's deep rear, making possible the rapid achievement of the most immediate strategic objectives.³²

Soviet military art responded rather quickly to the US shift to 'Flexible Response' and began to address the problem of combat across a spectrum of alternatives, ranging from general nuclear war to include theaters where nuclear weapons would not be used initially and local wars where nuclear weapons might not be employed at all.³³ The presence of enemy nuclear weapon systems in a theater demanded the application of combined arms forces against them. The high speed advance of tank and motorized forces, the application of airpower and the use of airborne landings were intended 'to limit to some extent the defender's opportunities to employ nuclear weapons'.³⁴ Soviet authors addressed command and control of combined arms formations as a problem of time and sought the means by which to gain relative advantage over a probable opponent through the application of cybernetics to the decision-cycle. The advantage gained in the planning and execution of staff and command actions Soviet authors termed 'critical time'.³⁵ In 1968, the third edition of Voennaia strategiiia addressed the problem of an initial period of nonnuclear combat during a general war, when conventional means

might be employed to achieve immediate strategic objectives.³⁶

The potential use of nuclear weapons still dominated the requirements for deployment of combat formations, making dispersal and mobility crucial to success, but now Soviet officers sought the means to make conventional forces more effective at the tactical and operations levels during the initial period of war. Mechanization extended not only to motorized rifle divisions but also to the growing number of airborne divisions.³⁷ The possession of a broad spectrum of nuclear weapons by both sides made it apparent to Soviet commanders that they could not count upon a massing of forces to achieve a breakthrough as the Red Army had done during the Great Patriotic War. On the other hand, the need of the enemy to disperse his forces under the threat of nuclear fire precluded massing for the defence and thus made penetration easier, if the attacker had sufficient maneuverability in both forces and fire power. One conspicuous result of the Soviet search for greater mobility over the next decade was the mechanization of Soviet artillery--a shift from towed tubes to tracked vehicles.³⁸

Gradually the Soviet Army emerged from a decade of reform with a dual-track capability to fight either nuclear or conventional. These doctrinal requirements radically exceeded what Soviet force planners could deliver in the 1960s, but they provided an agenda to guide the modernization of Soviet combat arms and support services into the next decade.³⁹

IV. Detente and the Era of 'Realistic Deterrence'

The period of the late 1960s and early 1970s represented a watershed for both the US and Soviet military systems. In a highly contradictory and fluid international environment, the two superpowers embarked upon a decade of negotiations designed to reduce the risks of war, manage the arms race and secure a mutually agreed upon set of principles to structure their continuing competition. On the Soviet side it was a period marked by growing confidence in the USSR's status as a great power and in the shift of the correlation of forces in favor of the USSR. US global strategy was seen as in a process of collapse under the weight of defeat in Southeast Asia and an internal crisis within the ruling elite.⁴⁰ At the same time a growing unease in the United States over the expansion of Soviet military power and the ability to project that power during the same period contributed to the gradual deterioration and final collapse of detente and 'Realistic Deterrence'. The superpowers' competition during this period was shaped by a host of other factors which influenced their domestic political situations and international positions, these factors influenced directly and indirectly the assumptions of actors in both polities regarding the relevance and utility of military power in their bilateral relations.⁴¹

During this period radical changes in military-political and military-technical affairs began to affect the paradigms of future war held by planners on both sides. On the Soviet side the

deterioration of relations with the People's Republic of China, which degenerated to border clashes along the Ussuri in 1969, created a different threat environment. On the one hand, the possibilities of hostilities with the PRC imposed upon the USSR the need to enhance its military capabilities in the Far East and to create a command structure to direct such forces.⁴² At the same time the Soviet employment of WTO military forces against Czechoslovakia in 1968 highlighted a growing capability to execute large-scale operations and achieve surprise.⁴³ In the wake of the Israeli successes against the Soviet Union's Arab allies in 1967 major problems of air defence and combat arms tactics received renewed attention. Soviet involvement in the air defence battles over Sinai during this period brought valuable practical insights into modern air defence, as did the experiences of their Vietnamese allies in countering the US air offensive over Southeast Asia. Surprise in all its manifestations figured even more prominently in Soviet military studies, especially those devoted to the initial period of war.⁴⁴ How much these concerns have been shaped by the Soviet General Staff assessment of the risks of a war on two fronts and the need to use surprise to resolve conflict decisively in one theater so as to avoid a widdening, protracted struggle or to bring about a radical shift of the correlation of forces in other theaters is unclear.

By 1977 the Soviet Union possessed sufficient confidence to make no first use of nuclear weapons its declaratory policy, and

by the early 1980s Chief of the General Staff Marshal N. V. Ogarkov in his writings on military art and force posture addressed the conduct of high-speed, multi-front, strategic operations.⁴⁵ Ogarkov emphasized the capabilities of Soviet forces and other objective factors as decisive elements in the struggle to prevent the imperialists from unleashing a world war. Should such a conflict begin, Ogarkov and other Soviet officers pictured it as a struggle between coalitions, which would encompass all continents and involve the use of the entire arsenal of means of armed struggle.⁴⁶ More recently Marshal Ogarkov has pointed to the paradox of current massive strategic offensive arsenals as negating the logic of Western theories on the employment of nuclear weapons in a limited nuclear war option. At the same time Ogarkov has emphasized the need to modernize conventional forces in the wake of technological developments associated with the appearance of precision-guided munitions (PGMs), the infusion of aviation into combined arms combat and the development of more advanced command and control systems.⁴⁷

For both US and Soviet military planners the practical experience of combat in recent local wars began to reshape perceptions of tactics and operational art. Many Western commentators addressed these changes as a shift in the balance between offence and defence on the modern battlefield. In retrospect, these authors saw the 1967 Arab-Israeli War as the last hurrah of the conventional combined-arms mechanized

offensive for its fighting still resembled that of the Western Desert in 1941-1943. Those Israeli lightning victories on several fronts had seemed to confirm that a modern mechanized force employed in conjunction with a devastating preemptive air attack still dominated the battlefield. However, the October 1973 conflict called this assumption into question. Some saw the mass use of PGMs in their anti-tank and anti-air roles as radically shifting the balance towards the defence. John Mearsheimer, writing on conventional deterrence, has gone so far as to assert that the PGM had drawn down the curtain on an era of warfare which began with the German Blitzkrieg of 1940.⁴⁸ Others have not been so certain, although all would agree that new conventional technologies were clearly pointing the way toward new tactical and operational possibilities.⁴⁹

In US military circles what emerged out of the events of October 1973 was a deepening concern for the role of conventional forces in the initial period of war and the problem of surprise in all its forms and complexity.⁵⁰ In the wake of the October War the US Army refocused its attention upon large-scale conventional warfare within the context of 'Realistic Deterrence'. The lessons of the October War raised questions regarding the structure of US ground forces. General William E. Dupuy, who assumed command of the US Army Training and Doctrine Command in July 1973, played a leading role in redirecting Army doctrine towards NATO concerns over the next three years. This effort culminated in a new set of field regulations which emphasized active defence and the initial

period of hostilities. The section devoted to operations stated: 'Today the US Army most, above all else, prepare to win the first battle of the next war'.⁵¹ The difficulties of fighting outnumbered in a situation where the adversary held the initiative were formidable. The new doctrine rested upon the assumption of an initial conventional phase to such a conflict. It proposed that US forces would by means of fire and attrition along the forward edge of battle (FEBA) be able to inflict such losses upon Soviet/WTO forces that the enemy's offensive plans would be frustrated and the political leadership would have to face the risks of theater escalation or stalemate. Theater nuclear weapons were to be used against the second echelon, by which US Planners meant those forces concentrated and deployed behind the initial attack force for the purpose of exploiting a breakthrough. The interdiction of strategic reserves, or strategic second echelon, which referred to the forces mobilized, concentrated and deployed from the western military districts of the USSR to support the development of a Soviet/WTO offensive, did not receive Army attention since they were outside the realm of corps concerns.⁵² Active Defense with its European orientation was designed to be in keeping with NATO requirements associated with 'Flexible Response' and 'Forward Defence'.

Some critical problems with 'Active Defence' emerged in the debates that followed the publication of the field manual in 1976. In its emphasis upon firepower and lethality in the close battle it seemed to subordinate maneuver and depth to forward

defence. Critics were quick to point out difficulties in conducting such a defence. For one thing, FM 100-5 (1976) seemed to postulate a Soviet attack based upon set-piece breakthrough operations like those executed during the final period of the Great Patriotic War, i. e., the massing of forces in a very narrow sector with deep echeloning to create the penetration and exploitation of the breakthrough.

In its emphasis upon winning the first battle FM 100-5 did not take into account the conclusions drawn by Soviet military science regarding the nature of combat in the initial period of war. On the basis of these conclusions Soviet military art emphasized that initial combat would be dominated by the meeting engagement (vstrechnyi бой) fought by combined arms units under circumstances which would maximize the effectiveness of armour. In such meeting engagements Soviet theorists posited a situation where both sides would enter into combat from the march and seek to gain the initiative and carry out their missions by offensive actions. Thus, the first battles of the next war were not in the Soviet view a series of set-piece general battles but a series of meeting engagements in which Soviet combined arms commanders would use forward detachments and advanced guards to penetrate, outflank, and envelop enemy forces, making it impossible for those units to conduct an organized defence. The commanders of combined-arms and tank armies were expected to provide direction and coherence to these meeting engagements according to the Front commander's operational plan. By directing the development of the

various meeting engagements into an operational encounter battle (vstrechnoe srazhenie) he would achieve his objectives and bring about the destruction of the opposing forces throughout their depth. Depending upon his mission, the enemy force, terrain, his own forces, and the time available, he might decide to unleash one or several forward detachments on key axes to strike into the enemy's operational depth and by high-speed march, avoiding combat, seize some crucial objective.⁵³

The Soviet concept of the meeting engagement posed a major dilemma for Active Defence because FM 100-5 had changed a basic assumption regarding the ratio of forces in contact to those in reserve. In place of the traditional idea of one unit up to two back, Active Defence presupposed that all forces not irrevocably committed formed a reserve in being, thus reducing, if not eliminating the need for tactical reserves.⁵⁴ Some critics worried that the doctrine was too intent upon a linear defence and that this, when combined with efforts to achieve concentration at critical points along the FEBA, would create opportunities for enemy forces to penetrate weakly defended areas and achieve encirclements. Winning the first battle depended upon concentration tactics, but these required freedom of lateral movement not easily achieved by engaged forces. Soviet maneuver and friction appeared likely to make such reployment by engaged battalions most difficult.⁵⁵

These and other issues stimulated a debate within the Army, which created a climate for the consideration of a wide ranger of

new concepts relating to central battle, future force requirements, placing the second echelon at risk, and worldwide contingencies. Over the next five years the US Army began to shift its doctrinal focus from the division and tactics towards those measures which would link together the close, rear and deep battles into an operational whole, thereby setting the stage for the emergence of the corps as a focal point of combat power and the articulation of operational art as the expression of that idea.⁵⁶

In 1981 Army doctrine writers coined a new term, AirLand Battle, to emphasize a combined-arms approach to deep operations, and in August 1982, with the publication of a new FM 100-5 AirLand Battle became Army doctrine.⁵⁷ Although some proponents initially presented AirLand Battle as a radical break with the past, the new doctrine was evolutionary, adding depth to the battle, underscoring the need for commanders to forge tactical successes according to an operational plan to bring about success in a theater, and presenting an integrated battlefield where circumstances might dictate the use of nuclear and/or chemical weapons. AirLand Battle reflected an Army concern for a doctrine which would fit conditions in other probable theaters where US forces might engage Soviet or Soviet surrogate forces just as well as those found in Europe.⁵⁸

V. Renewed Cold War and Conventional Military Power

The articulation of new Army doctrine had over the preceding postwar decades stimulated discussion within the military and to a lesser extent without. AirLand Battle, however, came at a time when the political climate and foreign policy concerns were giving shape to a new strategy. The years between 1976 and 1982 had witnessed a steady erosion of public support for detente and a growing hostility towards the Soviet Union. A consensus had emerged that defence had been neglected after Vietnam, that there were real external interests which required military power for their protection. The growth of Soviet military power and Moscow's ability and willingness to project that power into the Third World received increased public attention. The debate surrounding the ratification of SALT II turned into a consideration of a strategic window of vulnerability in the mid 1980s, when the US strategic arsenal was supposed to be vulnerable to a disarming first strike. The combination of a national humiliation in Iran and a Soviet coup and military intervention in Afghanistan were taken as proof of the need for an expanded commitment to national defence. In the final years of the Carter Administration and under President Reagan the level of defence spending increased.

Questions concerning the character of that defence effort also received greater attention. Critics, especially those associated with the military reform movement, which had close bipartisan ties to congress, criticized the command structure, debated the force posture, and questioned the procurement and acquisition of

various weapon systems. These circumstances alone would have guaranteed broad attention to AirLand Battle.

The formulation of AirLand Battle coincided with an intense debate within NATO over the role of theater-nuclear forces in 'Flexible Response'. The modernization of Soviet theater-nuclear forces, which began in 1977 with the introduction of the SS-20, had prompted an alliance decision to respond with its own force modernization. The deployment of Pershing II IRBMs and GLCMs, when no negotiated solution proved possible, created a political climate conducive to efforts to raise the theater-nuclear threshold through the improvement of conventional forces. In the past the costs of matching Soviet/WTO conventional forces had seemed beyond the realm of political-economic reality. Now, however, emerging technologies, especially those which extended the range, accuracy and lethality of smart conventional weapons, held out the prospect of negating Soviet/WTO numerical superiorities by permitting their engagement and destruction at great distance from the line of contact. Upon assuming command of NATO in 1979 General Bernard Rogers, former Army Chief of Staff, supported efforts to acquire such weapons systems and to integrate them into NATO doctrine.⁵⁹

Such views gained broad public attention thanks to a volume published under the auspices of the American Academy of Arts and Sciences by the Steering Group of the European Security Study (ESECS). Composed of twenty-six leading civilian and military figures from four NATO member-countries and with an invited

observer from Supreme Headquarters Allied Powers Europe attending, the Steering Group formed three workshops to address aspects of the problem: the estimation of the Soviet threat, the requirements for conventional defence, and the contributions that emerging technologies could make to conventional defence.⁶⁰ The document, when it appeared in the summer of 1983, quickly became identified as the Rogers Plan for the application of emerging technologies to the engagement and destruction of Soviet/WTO forces of the strategic second echelon, or Follow-On Forces Attack (FOFA).⁶¹

The core of the workshop report on the Soviet threat was Christopher Donnelly's analysis of an emerging Soviet capability to engage in deep, sustained raiding actions from the initiation of hostilities as part of a theater-strategic operation. Donnelly identified such combined-arms raiding forces as had been seen during the exercise 'ZAPAD-81' as Operational Manuever Groups (OMGs), a term found in Polish military periodicals, describing a modernized 'mobile group' (podvizhnaia gruppa) from the Great Patriotic War.⁶² Donnelly and his colleague, Peter Vigor, had already pointed to the multi-front offensive executed by Soviet forces in Manchuria against the Kwantung Army in August 1945 as a model for such a deep, high-speed, theater-strategic operation.⁶³ Vigor later described this as 'Soviet Blitzkrieg theory', by which he meant the utilization of surprise, shock, and deep operations by conventional forces to achieve victory quickly over NATO.⁶⁴

Philip Petersen and John Hines have added to our picture of this theater-strategic operation and the role of an initial air operation, airborne and airmobile landings, and the high-speed advance of tank and combined-arms formations, led by OMGs.⁶⁵ These authors were not arguing that the Soviet military had, in fact, achieved such capabilities, but only that troop norms were being revised to be in keeping with operational objectives. Soviet military periodicals had called attention to serious problems in command and control, air defence, and logistical support for such high-speed operations. Wider use of automated systems of troop control, which was seen as a means of maintaining centralized operational direction of an increasingly complex battle while permitting greater tactical initiative to junior commanders, has been touted as an answer to the command and control problem. Greater logistic support and a more streamlined command organization for rear services have been introduced. The entire structure of Soviet air defence forces has undergone a sweeping reorganization to provide more airpower to theater, front, and army commanders.⁶⁶

None of these developments were revolutionary. They reflected a greater emphasis on theater-scale operations and the need to exercise effective operational control of the forces committed, but this was not a radical break with the past. The OMG created such a stir because of the confidence it seemed to demonstrate in the Soviet Union's ability to use conventional forces in a decisive manner at the operational-strategic level.

To some extent the surprise was the result of the poverty of Western analysis of Soviet military art. Intelligence communities, pressed by current requirements for immediate assessments of the order of battle, seldom had the time or opportunity to address intentions.⁶⁷

Open source Soviet military publications received little attention outside a very narrow circle of specialists, and few of these devoted much attention to the history of the Soviet, much less Russian, military. With the exception of John Erickson, few Western scholars could make any claim to having mined the mountains of publications devoted to every aspect of the Great Patriotic War.⁶⁸ Until very recently Western scholarship, relying heavily upon the memoirs of German commanders, took for granted Field Marshal von Manstein's notion that the East was a realm of 'lost victories', taken from the Wehrmacht by 'Corporal Hitler and Generals Mud and Winter'.⁶⁹ On closer examination the Red Army emerges as a much more formidable opponent. Learning from mistakes in the initial period of the war, Soviet forces during the second and third phases of the war, i. e., from the Stalingrad Counter-Offensive, demonstrated a growing mastery of the operational level of war. German tactical successes, which could be found until very late in the fighting, drowned in a sea of operational disasters.⁷⁰

Such a reappraisal of Soviet military art raises serious issues regarding the search for tactical solutions for NATO's problems of fighting conventionally and outnumbered. Some analysts have

argued that the Wehrmacht's tactical experience confirms the wisdom of training commanders in mission-oriented tactics (Auftragstaktik).⁷¹ However, some recent commentators have questioned whether Soviet tactics were or are as stereotyped as the advocates of mission-oriented tactics assume.⁷² The attention to the development of Soviet operational art has led to a better appreciation of the Soviet way of war and from this a more realistic appreciation of the threat than that provided by aggregate counts of formations, men-under-arms, or weapons systems.

Turning to the improvement of NATO conventional forces, the ESECS report addressed a wide range of reforms designed to enhance existing NATO strategy. 'Flexible Response' and 'Forward Defence' were taken to be entirely adequate to meet the WTO threat. Raising the nuclear threshold would permit the alliance to deter more effectively and in case of hostilities allow NATO forces to fulfill required missions without early resort to nuclear weapons.⁷³ While the study addressed a number of issues relating to improved conventional forces, the topic that received the greatest attention was a set of proposals designed to use emerging technologies to obtain accurate and real-time target acquisition and to employ precision-guided munitions delivered by stand-off air platforms or by ground-based missiles in deep strikes. The targets of the new conventional weapons were to be Soviet/WTO command and control, air power infrastructure, interdiction of logistical support, and direct attack upon

elements of the strategic second echelon. The execution of these deep strike missions would depend upon the costs, rate of acquisition, and net advantage gained through the development of such emerging technologies. The Workshop promised rapid procurement and low costs; the entire program outlined by the ESECS was to cost less than \$10 billion.⁷⁴ This proposal to enhance conventional deep strike capabilities became known as Follow-On Forces Attack (FOFA).

While the report contained a number of valuable proposals, which addressed the improvement of NATO intelligence capabilities and increased interoperability of alliance forces, FOFA received the greatest public attention. In Europe critics feared that FOFA was an attempt to shift NATO strategy to fit AirLand Battle, and some worried that it would worsen East-West relations.⁷⁵ The Rogers Plan, as it became known in the press, was either a radical strategic departure or a modest reform, depending upon the viewer's perspective.

Some supporters of FOFA certainly presented it as a major first step to a new NATO strategy. Professor Samuel Huntington outlined one variant of this new strategy in an article for International Security. Based upon a paper presented to a conference at the US Army War College, the article called for improved conventional capabilities to provide for conventional, in place of nuclear, retaliation.⁷⁶ Huntington began with the problem of the erosion of credibility of extended nuclear deterrence and proposed to substitute conventional retaliation in the form of a prompt NATO

counter-offensive into Warsaw Pact territory. He argued that the threat of such an attack would force Soviet political leaders to think twice before undertaking an attack upon NATO because it would apply military power against their political vulnerabilites, i. e., their uncertain allies in Eastern Europe.⁷⁷ Such a conventional counter-offensive would frustrate Soviet hopes for a short war without necessarily invoking suicide.

Controversial on military grounds because it proposed an offensive action for which there did exist an effective command structure to bring about its timely execution by the various national corps, the proposal had severe liabilities when it treated the military vulnerabilities of Soviet forces to such an attack. Huntington based his counter-offensive on the off-repeated assertion that Soviet forces are configured for the offensive and so would be particularly vulnerable to a NATO counter-blow.⁷⁸ The historical record, and it is the only evidence that we have in this area, does not confirm such an assessment of Soviet vulnerability to counter-attacks. The most outstanding successes by opponents against Soviet offensives have come when they out ran their supplies and air support, their lead elements were badly attritioned and friction had undermined operational command and control. An early case of this was Marshal Pilsudski's counter-offensive before Warsaw and the best known case from World War II was Manstein's counter-stroke before Kharkov in 1943.

The Soviet ability to recover from unexpected attacks has been less well studied, but strategic echeloning is designed to provide front and theater commanders with the necessary forces to engage in operational adjustments. A particularly effective Soviet counter-offensive was that launched against the 6th SS Panzerarmee in the Lake Balaton region of Hungary in 1945.⁷⁹

Huntington specifically associated his proposal with an attempt to escape from a 'Maginot Line' mentality, calling to mind the tragic consequences when prudent measures become a substitute for effective strategy. Nuclear retaliation had become such a 'Maginot Line', and Huntington was purposing a shift in strategy that would recreate a credible deterrence. But like the French shift to maneuver when her army had no effective tank divisions and insufficient maneuver battalions to engage in mobile warfare, Huntington's proposal placed the cart before the horse. As General Donn A. Starry pointed out, AirLand Battle and FOFA represent efforts to restore maneuver to the corps battle by by linking together close, deep, and rear battle. Its fundamental objectives are '(1) po'itically to collapse the Warsaw Pact's will to pursue military action; and (2) to avoid, if at all possible, the use of nuclear weapons - theater nuclear forces to be sure, but more importantly strategic or central nuclear systems, the intercontinental ballistic and submarine launched ballistic systems'.⁸⁰ AirLand Battle and FOFA addressed how to defeat the enemy operationally at the corps level, not how to send army groups rushing into Eastern Europe seeking to use a

counter-offensive by conventional forces to force a strategic political decision in theater.

Even the limited maneuver capabilities required in FOFA will not spring from wishful thinking in one of two capitals but depend, as does the alliance's entire edifice, upon the members' collective willingness to sustain the joint effort in the face of a commonly agreed upon threat. Men and materiel to conduct a viable defence are the product of political will. Huntington's underlying assumption is that the conventional counter-offensive will not tax NATO resources.⁸¹ That is, in fact, open to question.

Most supporters of FOFA were more willing to build and sustain consensus than remake strategy; they presented the improved deep strike capabilities as the acquisition of a real conventional interdiction capability, a mission to which NATO had paid lip service in the past.⁸² They pointed to the need to adjust doctrine to a changing threat and then seek to match the doctrine with relevant force capabilities.⁸³ Following the approval of the FOFA concept in November 1984 General Rogers himself stressed the tactical aspects of FOFA and affirmed that it was in no way incompatible with 'Flexible Response' or 'Forward Defence'.⁸⁴

Another area of dispute between proponents and critics of FOFA has been the issue of whether the emerging technologies solution did, indeed, address NATO's dilemma effectively. Supporters claimed that the new weapons systems' promise and low costs justified the investment. James A. Tegnalia, Assistant Under-

Secretary of Defense for Conventional Initiatives, made the case for this solution as a necessary augmentation to NATO's nuclear deterrence capabilities, which would allow NATO to sustain 'Forward Defence'. Tegnalia underscored the application of the emerging technologies to the deep battle which he defined as at a depth of 100 kilometer from the Forward Line of Troops (FLOT). While noting the progress in the development of the necessary weapons systems and their integration into an operational concept, Tegnalia pointed to a cost that was on the order of \$20 or \$30 billion dollars.⁸⁵

Critics were much less optimistic and denied these claims, judging FOFA bad deterrence and poor warfighting.⁸⁶ Steven Canby has argued that NATO's central problem is, in fact, a shortage of operational reserves. NATO in this argument has been outgunned and not outmanned.⁸⁷ Canby asserted that FOFA advocates were wrong-headed in attempting to deal with a shortage of NATO reserves by eliminating Soviet/WTO follow-on forces before they reached the battlefield. He pictured the commitment to emerging technologies and deep strike as the latest in numerable attempts to achieve technological fixes to doctrinal and force structure problems within the alliance.⁸⁸ Canby doubted that the various emerging technologies, i.e, sensors, command and control capabilities, deliver systems and munitions would have the synergetic effect that proponents claimed. He saw the costs estimates as still too low, the lead-times too short, and the counter-measures too cheap to justify the hopes. He reminded his

readers that technology is neutral, it favors neither offense nor defence, only the force which has mastered its application at all levels of war. Technological leads always seemed longer and more decisive in the development stage of weapons systems than they did in practice. Any truly radical advances in NATO capabilities were likely to instigate a vigorous and simultaneous efforts by the Soviets to obtain the capabilities, integrate them into existing doctrine, reform doctrine to optimize their application, and develop effective countermeasures to enemy employment.⁸⁹ Canby also underscored the distinction between a political solution to a strategic problem and a realistic military one by pointing to the reality of war in which friction would play havoc with doctrinal assumptions from the initiation of hostilities. He cited Michael Howard's sound counsel that the best doctrine did not provide ready-made solutions to such complex situations but only the framework and mental agility for commanders and their staffs at all levels to adapt to new and unanticipated situations.⁹⁰ As Howard himself pointed out, the historical record is not one to sustain great optimism in this area.

VI. Conclusion

For all the ink spilled and all the passion expended, we return to those doctrinal asymmetries with which we began. The increased interest in a new generation of smart weapons has not brought a

radical break in military doctrine on either side. Political factors loom much larger in setting the context of doctrinal change than do wonder weapons. Efforts to seize and hold the technological initiative in key areas have influenced each side's threat perception. Within NATO technological innovations have often been recommended in lieu of military-political reforms, which carry much higher socio-political costs. Nor have conventional weapons become a substitute for nuclear weapons, although some of them are approaching the area effectiveness of tactical nuclear systems. No clear lines have been drawn between the use of conventional forces and nuclear weapons for that matter, and the appearance of more cruise missiles and tactical ballistic missiles with conventional warheads will make discrimination of the threat more difficult. The best that may be achieved is the raising of the nuclear threshold while sustaining deterrence, the worst is a blurring of the distinction.

One of the most intriguing aspects of these doctrinal asymmetries lies in the realm of language. Advocates and opponents of improved NATO conventional forces are united in their use of one term to describe the threat posed by a Warsaw Pact conventional offensive: Blitzkrieg. They disagree regarding the meaning of the term. All associate it with a short war and the use of surprise. But some link it to the employment of mechanized forces and tactical aviation to achieve victory on the model of the Wehrmacht in 1940.⁹¹ Others would define it as an attempt to win quickly before an economically more powerful

opponent can mobilize and shift the correlation of forces against the attacker as the Schlieffen Plan set out to do against France.⁹²

Blitzkrieg, however, does not carry these meanings in Soviet usage. Soviet military theorists before, during, and after the Great Patriotic War have shared a continuing hostility to Blitzkrieg, which they identify with German militarism and categorize as the embodiment of an adventuristic strategy. This strategy took grave risks in trying to use limited means to achieve expansionist goals. The Soviets indict the German government and military for making the same mistake in both world wars. The Germans' willingness to take high-level military risks in the hope of achieving quick and overwhelming success culminated in the planning and execution of Operation Barbarossa, a task for which Hitler's Germany was totally unprepared politically, economically, and militarily. The correlation of forces scarcely favored any German success, much less than one achieved in five weeks.⁹³ Soviet authors criticize Blitzkrieg because of this disconnect between military means and political objectives.

Soviet authors have used the term "lightning operation" [molnienosnaia operatsiia] with approval, applying it to the Jassy-Kishinev Operation, where two Soviet fronts achieved the destruction of Army Group South Ukraine, Rumania's withdrawal and then reentry into the conflict on the Soviet side, and a rapid Soviet penetration of the Balkans.⁹⁴ Marshal Zakharov, then Chief

of the General Staff, thus used Jassy-Kishinev as an example of what Soviet forces should expect to achieve in a modern offensive operation. The Soviet destruction of the Kwantung Army and the occupation of Manchuria and northern Korea in August 1945 can also be classed as a lightning operation.⁹⁵ From a Soviet perspective one of the crucial distinctions between lightning operations and Blitzkrieg lies in the level of risk involved. Jassy-Kishinev and Manchuria were not high-risk military ventures. Soviet military power and foreign policy worked hand-in-hand to create a situation where the military risks were low, the possibilities of foreign complications minimized, and the potential political gains high. These operations were Clausewitzian in the highest sense of that term. Surprise, mobile groups, concentration of effort in key sectors, the exploitation of terrain which the opponent saw as impassible, the echeloning of the attacks, and the effective use of maskirovka to conceal the extent and timing of the action were practiced in many other operations on the Eastern Front -- operations which covered more ground, destroyed more enemy forces, and had a more decisive impact upon the enemy's center of gravity. But I have found no record where Soviet military analysts have used the term lightning operation to refer to any of these.

The conclusion follows that lightning operations are exceptional opportunities to be exploited when the chance arises but not the expected form of combat, and certainly not the one which would began a systemic war between NATO and the WTO. Vigor

is certainly right in his assertion that the Soviets would like to avoid escalation by bringing about a quick and decisive victory in the theater. But Soviet doctrine must assume that the option of escalation will be exercised by NATO forces should the Soviets seem likely to achieve such results. As Benjamin Lambeth has pointed out, the Soviet High Command would face so many uncertainties that no decision to attack would come easily.⁹⁶ This underscores a certain prudence in the Soviet use of military power. NATO solidarity and an effective commitment to conventional deterrence thus can serve to reinforce such prudence. Soviet society may be militarized, but the Soviet regime, as Michael Howard has pointed out, is not bellicose.⁹⁷ Howard further argues that Western prudence consists of maintaining a viable military posture, secure alliance system and general economic prosperity while at the same time making certain that Western actions never confront the Soviet leadership with the appalling dilemma of choosing between systemic collapse and systemic war.

Soviet declarations about the nature of future war remain remarkably clear and consistent. Such a conflict is not inevitable; the forces of peace are growing, and Soviet military power can deter Western adventurism. Should that deterrence fail, then war would be systemic, involve coalitions of powers, take on global dimensions, witness the employment of the full arsenals of both sides, and be historically decisive.⁹⁸ Such statements are always couched in terms of imperialism's aggressive nature, but

they emphasize the Soviet willingness to use military power to threaten the adversary's social system. This is deterrence by threat of war of annihilation, which may seem reassuring because it leaves little room for adventurism but must raise anxieties because of the ideological hostility upon which it is based and the possibility that miscalculation, misperception and simple accident could transform a political struggle into a general war in which there would be little room for limitation once deterrence failed.

The modernization of conventional force doctrine must be viewed within this context. A conventional force option has become part of the military doctrines on both sides. Yet, as an option to initiate hostilities with some notion of political gains in keeping with the risks involved it remains an option in theory, not in practice. War is too complex, chaotic and uncertain for any commander to believe that the engagement of the major forces of each coalition in the vital central region could be kept conventional for anything but a short period of time. The OMG, as Donnelly has pointed out, fits both conventional and nuclear operations. Successful penetration in the former could make it very difficult for NATO to exercise a nuclear option against it. The recent edition of Reznichenko's Tactics underscores the impact of nuclear weapons on the battlefield while exploring the ways in which conventional forces might be employed to negate them in the initial period of war.⁹⁹ AirLand Battle and FOFA, likewise, are extensions of a conventional option to an

integrated battle. Indeed, as Soviet observers point out, the recce-strike complexes, which are the heart of deep strike's emerging technology, are an attempt to create smart conventional weapons, which can be more lethal against certain types of targets than the tactical nuclear weapons they replace.¹⁰⁰

The world of deterrence has become more complex and the need for doctrinal clarity more compelling. Among the many proposals that have addressed the military-political context of the superpower competition, those confidence-building measures which provide for greater opportunities for the study and exchange of information regarding military doctrine have substantial promise. The proposals put forward by Senators Nunn and Levin in March 1983, which called for exchange visits between senior US and Soviet military leaders, deserve serious attention. The Soviets may object to wider exchanges of military information as a form of 'legal espionage', but such exchanges offer opportunities for a much more accurate appraisal of those factors which shape doctrine. A more realistic assessment of the threat is in the interest of both sides. Such exchanges were developing under the Carter Administration but died with Afghanistan. They will not flower in a time of superpower confrontation, but in a more relaxed period, when the competition is less strident, they could serve to reinforce greater confidence in the political arena by drawing greater attention to the problem of political-military intentions and doctrinal change.¹⁰¹ In a more favorable climate, they could serve as a means of addressing the problem of surprise

in the threat perception of both sides and make possible more effective arms-control measures for reducing the risk of surprise in the central region and other potential theaters of military action.

If some military forecasters are correct, there are even more compelling reasons for such exchanges. In a provocative book Brigadier Richard E. Simkin argues that military affairs has reached a turning point analogous to that of fifty years ago when mechanized warfare emerged. Simkin sees a qualitative shift in airmobile operations, which until now have supported a tank-dominated battle. Airmobile operations may become the 'rotary wing revolution'. He has linked this trend to another, a shift to special forces as the most usable form of military power left to states in the late twentieth century. This combination is conditioned by greater emphasis upon strategic surprise in the employment of combat power.¹⁰² Marshal Ogarkov's comments on the expanding role of aviation in all its forms as part of theater-strategic operations lends some support to the rotary revolution.¹⁰³ His attention to the idea of the unity and struggle of opposites and the negation of the negation as elements of the dialectic relevant to contemporary military affairs suggests that he too sees the current period as one of revolutionary change.¹⁰⁴ These indications of radical changes in military affairs point towards a greater role for conventional

forces within the military postures of each state. The need to grasp the significance of these doctrinal asymmetries has become more than a matter of military policy.

Endnotes

1. This opinions expressed in this essay are solely those of the author and should in no way be construed to represent the opinions of the Department of the Army or the US Department of Defense.
2. Robert Jervis, 'Deterrence Theory Revisited', World Politics, XXXI, No. 2, (January 1979), pp. 289-324.
3. On the problem of the War in the East as a Vernichtungskrieg see: Manfred Messerschmidt, 'Der Kampf der Wehrmacht im Osten als Traditionsproblem', Gerd Ueberscharl and Wolfram Wette, eds., 'Unternehmen Barbarossa': Der Ueberfall auf die Sowjetunion 1941 (Paderborn: Schöningh, 1984), pp. 253-270.
4. Michael Howard, ed., Restraints on War: Studies in the Limitation of Armed Conflict (Oxford: Oxford University Press, 1979), pp. 1-17. See also essays in this volume by John G. Garnett on conventional war in the nuclear era (pp. 79-102) and Laurence Martin on limited nuclear war (pp. 103-122). Howard argues that war is instrumental and not elemental, its only legitimate purpose is a better peace. This argument is very close to the Soviet idea that the defence of socialism, first of all, should prevent attack; once hostilities have begun, however, the end of conflict must involve the termination of the root of war. In this case the source of potential hostilities and the root of war is ideologically defined to be militarized capitalism. See: Jacob W. Kipp, 'Lenin and Clausewitz: The Militarization of Marxism', Military Affairs, XLIX, No. 4, (October 1985), pp. 181-190.
5. John J. Mearsheimer, Conventional Deterrence (Ithaca, New York: Cornell University Press, 1983).
6. Vannevar Bush, Modern Arms and Free Men: A Discussion of the Role of Science in Preserving Democracy (New York: Simon and Schuster, 1949), pp. 113-136.
7. Barry Posen, The Sources of Military Doctrine: France, Britain, and Germany between the World Wars (Ithaca, New York: Cornell University Press, 1984), pp. 1-33.
8. Sovetskaia voennaia entsiklopediia (Moscow: Voenizdat, 1976-1980), III, pp. 225-226.
9. P. A. Zhilin, Problemy voennoi istorii (Moscow, Voenizdat, 1975), pp. 135-141.

10. Michael Howard, 'The Future of Deterrence', Journal of the Royal United Service Institution [hereafter, RUSI], No. 6, (June 1986), pp. 3-10.

11. M. M. Kir'ian, ed., Voenno-tekhnicheskii progress i Vooruzhennye Sily SSSR (Moscow: Voenizdat, 1982), pp. 218-255; and A. Dunnin, 'Razvitie sukhoputnykh voisk v poslevoennyi period', Voenno-istoricheskii zhurnal, No. 5, (May 1978), pp. 33-40.

12. Robert Doughty, The Evolution of US Army Tactical Doctrine, 1945-1976 in: Leavenworth Papers No. 1 (Ft. Leavenworth, Kansas: Combat Studies Institute, US Army Command and General Staff College, 1979), pp. 2-7

13. David Holloway, The Soviet Union and the Arms Race (New Haven: Yale University Press, 1983), pp. 29-39.

14. M. A. Gareev, M. V. Frunze--voennyi teoretik (Moscow: Voenizdat, 1985), pp. 238-239.

15. Ibid. pp. 39-43.

16. John Erickson, 'The Soviet View of Deterrence: A General Survey', in: Jonathan Alford, ed., The Soviet Union: security policies and constraints (New York: St. Martin's Press, 1985), pp. 136-145.

17. Nikita Khrushchev, Khrushchev Remembers: The Last Testament (New York: Bantam Books, 1976), pp. 16-29, 44-56, 250-262.

18. I. Korotkov, 'On the Basic Factors Determining the Course and Outcome of War,' Sovetskaia aviatsiia, No. 8, (August 1958) in: Arnold Horelick, Some Soviet Views on the Nature of Future War and the Factors Determining Its Course and Outcome (Santa Monica: Rand Corporation, 1958), p. 32.

19. Oleg Penkovsky, The Penkovsky Papers (New York: Doubleday & Company, 1965), pp. 252-257.

20. V. G. Kulikov, ed., Akademiia General'nogo Shtaba (Moscow: Voenizdat, 1976), pp. 141-159; and V. D. Sokolovsky, Soviet Military Strategy edited and translated by Harriet Scott, (New York: Crane, Russack, 1984).

21. G. Isserson, 'Zapiski sovremennika o M. N. Tukhachevskom', Voenno-istoricheskii zhurnal, No. 4, (April 1964), pp. 65-67.

22. Alexander L. George and Richard Smoke, Deterrence in American Foreign Policy: Theory and Practice (New York: Columbia University Press, 1974), pp. 26ff.

23. Doughty, pp. 12-18.
24. Robert S. McNamara, The Essence of Security: Reflections in Office (New York: Harper & Row, 1968), p. 69.
25. Doughty, pp. 25-32.
26. Doughty, pp. 22-25.
27. The North Atlantic Treaty Organization: Facts and Figures (Brussels: NATO Information Service, 1981), pp. 139-140.
28. Norman A. Graebner, 'The United States and NATO, 1953-1969', in: Lawrence S. Kaplan and Robert W. Clawson, eds., NATO after Thirty Years (Wilmington, Delaware: Scholarly Resources, 1981), pp. 31-47.
29. Doughty, pp. 31-32.
30. Morris Janowitz, 'The Impact of a Volunteer Force on Strategic Affairs', in: Frank N. Trager and Philip S. Kronenberg, eds., National Security and American Society: Theory, Process and Policy (Lawrence, Kansas: The University Press of Kansas, 1973), pp. 579-593.
31. Donn A. Starry, 'A Tactical Evolution--FM 100-5', Military Review, No. 8, (August 1978), pp. 3-4.
32. P. Rotmistrov, 'Boevoe ispol'zovanie bronetankovykh voisk v nachal'nyi period voiny', Voennaia mysl, No. 7, (July 1964), p. 70.
33. V. Reznichenko, 'Voprosy sovremennogo obshchevoiskovogo boia', Voennaia mysl, No. 3, (March 1964), p. 21.
34. Ibid., p. 25. See also: V. E. Savkin, Tempy nastupleniia (Moscow: Voenizdat, 1965), pp. 7-15.
35. A. Tatarchenko, 'Kriticheskoe vremia i operativnost' upravleniia voiskami', Voennaia mysl, No. 7 (July 1965), pp. 27-32.
36. Sokolovsky, Voennaia strategii (Moscow: Voenizdat, 1968), pp. 240-241, 335-337.
37. Kir'ian, Voenno-tekhnicheskii progress i Vooruzhennye Sil SSSR pp. 301-304. Soviet airborne divisions, which now number seven, were transformed into light mechanized forces within sufficient mobility and fire power to create a serious threat in the enemy tactical zone, if dropped as battalions or regiments, and at operational depth, if dropped as regiments or a division. Their potential utility for a military-political coup de main

against a capital city was first demonstrated against Prague and then in 1979 against Kabul. On Soviet airborne forces: see: Graham Turbeville, 'Airborne Forces', Soviet Armed Forces Review Annual IX, (1986), forthcoming.

38. David Isby, Weapons and Tactics of the Soviet Army (London: Janes, 1981), pp. 161 ff.

39. John Erickson, 'The Soviet Military System: Doctrine, Technology and "Style"', in: John Erickson and E. J. Feuchtwanger, eds., Soviet Military Power and Performance (Hamden Court, Conn.: Shoe String Press, 1979), pp. 18-23.

40. V. M. Kulish, Voennaia sila i mezhdunarodnye otnosheniia (Moscow: Izdatel'stvo 'Mezhdunarodnye Otnosheniia', 1972), pp. 3 ff.

41. Jacob W. Kipp, 'US-USSR Military Balance', in: Della Sheldo., ed., Dimensions of Detente (New York: Praeger, 1978), pp. 196-216.

42. V. Kulikov, 'Strategicheskoe rukovodstvo vooruzhennymi silami', Voenno-istoricheskii zhurnal, No. 6, (June 1975), pp.

43. Robert Littell, ed., The Czech Black Book: Prepared by the Institute of History of the Czechoslovak Academy of Sciences (New York: Praeger, 1969), pp. 5-71.

44. S. V. Ivanov, ed., Nachal'nyi period voiny (po opytu kampanii i operatsii Vtoroi Mirovoi voiny (Moscow: Voenizdat, 1974), pp. 4-22; I. Shavrov, 'Lokal'nye voiny i ikh mesto v global'noi strategii imperIALIZMA', Voenno-istoricheskii zhurnal, No. 3, (March 1975), pp. 21-38 and No. 4, (April 1975), pp. 90-97; I. Shavrov, ed., Lokal'nye voiny: Istoriia i sovremennost', (Moscow: Voenizdat, 1981); and M. N. Kir'ian, Vnezapost' v operatsiakh vooruzhennykh sil SShA (Moscow: Voenizdat, 1982).

45. N. V. Ogarkov, Vsegda v gotovnosti k zashchite otechestva (Moscow: Voenizdat, 1982), pp. 31-39.

46. P. Altukhov, 'Osobennosti upravleniia ob'edineniiami i soedineniiami koalitsionnogo sostava po opytu voiny (1939-1945 gg.)', Voenno-istoricheskii zhurnal, No. 3, (March 1982), pp. 17, 52.

47. N. V. Ogarkov, Istoriia u hit bditel'nosti (Moscow: Voenizdat, 1985), pp. 76-90.

48. John J. Mearsheimer, 'Why the Soviets Can't Win Quickly in Central Europe', International Security VII, No. 1, (1982), pp. 3-39.

49. FM 100-5 (July 1, 1976), pp. 2-1 to 2-4.

50. Michael Handel, 'Crisis and Surprise in Three Arab-Israeli Wars', in: Klaus Knorr and Patrick Morgan, eds., Strategic Military Surprise: Incentives and Opportunities (New Brunswick, New Jersey: Transaction Books, 1983), pp. 111-146; Richard Betts, Surprise Attack: Lessons for Defense Planning (Washington, DC: The Brookings Institution, 1982); and Richard Betts, 'Surprise Attack and Preemption', in: Graham T. Allison, Albert Carnesale, and Joseph S. Nye, Jr., eds., Hawks, Doves, and Owls: An Agenda for Avoiding Nuclear War (New York: W. W. Norton & Company, 1985), pp. 54-79.

51. FM 100-5 (July 1, 1976), p. 1-1.

52. John L. Romjue, From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982 (Fort Monroe, Virginia: Historical Office, United States Army Training and Doctrine Command, 1984), pp. 33-39. While the 1976 edition of FM 100-5 had posited the use of nuclear weapons in an interdiction role, the targets had been close behind the FEBA. In 1979 the argument emerged that improved technology in target acquisition, command and control, and long-range strike capabilities made it possible to engage in deep strikes with corps taking on the responsibility for such a mission.

53. On the development of meeting engagement (vystrechnyi бой) and the operational encounter battle (vystrechnoe srazhenie) see: A. A. Iamanov, Vystrechnyi бой: Operativno-takticheskoe issledovanie na voenno-istoricheskoi osnove (Moscow: Voenizdat, 1959); V. G. Reznichenko, ed., Taktika 1st edition, (Moscow: Voenizdat, 1966), pp. 137 ff; A. Kh. Babadzhanian et al., Tanki i tankovye voiska 2nd edition, (Moscow: Voenizdat, 1980), pp. 269-304; and V. G. Reznichenko, ed., Taktika 2nd edition, (Moscow: Voenizdat, 1981), pp. 152-173.

54. Romjue, pp. 14-18.

55. Ibid., pp. 19-21.

56. US Army Training and Doctrine Command (Tradoct), US Army Operational Concepts for the AirLand Battle and Corps '86, Tradoct Pam 525-5, 25 March 1981; and John Romjue, 'The Evolution of the AirLand Battle Concept', Air University Review, XXXV, No. 1, (May/June 1984), pp. 11-15.

57. FM 100-5. August 20, 1982 pp. 2-1 to 2-3.

58. Ibid., pp. 17-1 to 17-13. On the question of whether this manual was revolutionary or evolutionary see: Archer Jones, 'FM 100-5: View from the Ivory Tower', Military Review LXIV, No. 5, (May 1984), pp. 17-22. Professor Jones had reviewed the 1976

edition of FM 100-5 for Military Review in 1978. While expressing some doubts about the manual's rhetoric concerning the strength of the offense over the defence, he found it an extension of the 1976 publication, rather than its negation.

59. Bernard Rogers, 'Enhancing Deterrence--Raising the Nuclear Threshold', NATO Review, 30, No. 6, (December 1982), pp. 6 ff.

60. Strengthening Conventional Deterrence in Europe: Proposals for the 1980s (New York: St. Martin's Press, 1983), pp. 7-36.

61. Frederick Bonnard, 'Follow-On Forces Attack', NATO's 16 Nations, 29, No. 7, (November-December 1984), pp. 19-51.

62. C. S. Donnelly, 'The Soviet Operational Maneuver Group: A New Challenge for NATO', Military Review LXIII, No. 3, (March 1983), pp. 43-60. On ZAPAD 81 and the OMG see: Jeffrey Simon, Warsaw Pact Forces: Problems of Command and Control (Boulder, Colorado: Westview Press, 1985), pp. 192-194.

63. Peter H. Vigor and Christopher Donnelly, 'The Manchurian Campaign and Its Relevance to Modern Strategy', Comparative Strategy, 2, No. 2, (1980), pp. 159-178. For an informed treatment of the OMG issue and its historical antecedents see: Chris Bellamy, 'Antecedents of the Modern Soviet Operational Manuever Group (OMG)', RUSI 129, No. 3, (September 1984), pp. 50-58.

64. P. H. Vigor, Soviet Blitzkrieg Theory (London: Macmillan, 1983), pp. 1 ff.

65. Philip A. Petersen and John G. Hines, 'The Conventional Offensive in Soviet Theater Strategy', Orbis, 27, No. 3, (Fall 1983), pp. 695-739.

66. John Hemsley, Soviet Troop Control: The Role of Command Technology in the Soviet Military System (Oxford: Oxford University Press, 1982); D. A. Ivanov, V. P. Savell'ev and P. V. Shemansky, Osnovy upravleniia voiskami v boiu (Moscow: Voenizdat, 1977); and John Erickson and Lynn M. Hanson, Soviet Combined Arms: Past and Present (College Station, Texas: Center for Strategic Technology, Texas A & M University, 1981).

67. For an appreciation of the problem of assessing Soviet military capabilities and intentions see: John Prados, The Soviet Estimate: US Intelligence Analysis and Soviet Strategic Forces, 2nd edition (Princeton: Princeton University Press, 1986). Problems relating to the structure of the intelligence system, its tasking, and bureaucratic politics reinforce a tendency towards immediate concerns at the expense of context and perspective. Ethnocentrism can reinforce a bias towards capability analysis by promoting stereotyped assumptions

regarding intentions, interests, and mirror-image assessments of the relevance of numbers of units and weapons systems. On the impact of ethnocentrism on military analysis see: Ken Booth, Strategy and Ethnocentrism (London: Croom Helm, 1979).

68. Erickson's three volumes, The Soviet High Command, The Road to Stalingrad, and The Road to Berlin, form the classics of Soviet military studies in the West. Much has happened in the last decade to add depth and variety to those studies, including the publication of supporting bibliographies, specialized studies, an annual, and an ambitious encyclopedia project. Soviet publications have also become more forthcoming as well. For more details on these developments see: Jacob W. Kipp, 'Studies in Soviet Aviation and Air Power', Aerospace Historian, 31, No. 1, (Spring/March 1981), pp. 13-41.

69. Recent works have interpreted the Wehrmacht's Eastern War in a very different light. See: Horst Boog et al., Der Angriff auf die Sowjetunion in: Das Deutsche Reich und der Zweite Weltkrieg (Stuttgart: Deutsche Verlag-Anstalt, 1983), IV. The most controversial recent work on the initial phase of the Great Patriotic War is Bryan Fugate's volume on Operation Barbarossa. Fugate offers the thesis that the Soviet High Command did, indeed, have a realistic plan or operational concept for dealing with the German attack. See: Bryan Fugate, Operation Barbarossa (San Francisco: Presidio Press, 1981). On this issue and the debate surrounding Soviet doctrine and operational plans on the eve of the invasion see: Barry D. Watts and Williamson Murray, 'Inventing History: Soviet Military Genius Revealed', Air University Review, XXVI, No. 3, (March-April 1985), pp. 102 ff; Bryan Fugate, 'On Inventing History', Air University Review, XXVI, No. 6, (September-October 1985), pp. 121-125; and Jacob W. Kipp, 'Barbarossa, Soviet Covering Forces and the Initial Period of War: Military History and Airland Battle', Air University Review, forthcoming.

70. David M. Glantz, 'The Nature of Soviet Operational Art', Parameters, XV, No. 1, (1985), pp. 2-12; and US Army War College, 1984 Art of War Symposium; A Transcript of Proceedings (Carlisle Barracks, PA: Center for Land Warfare, US Army War College, 1984), pp.

71. F. W. von Mellenthin and R. H. S. Stolfi, with E. Sobik, NATO under Attack: Why the Western Alliance Can Fight Outnumbered and Win in Central Europe without Nuclear Weapons (Durham, NC: Duke University Press, 1981). Von Mellenthin, a respected German officer and author on mechanized warfare with his coauthors argues that German success with Auftragstaktik can be repeated against the Soviet Army because Soviet tactics, based upon battle drills, are inflexible and stifle the initiative of company, battalion and regimental commanders. That NATO does not have one tactical doctrine but many--as many as there are distinct

national corps--and that these doctrines are quite different raise some reservations regarding the applicability of mission-oriented tactics. Put bluntly, one can imagine any number of tactical successes, which in their sum, amount to operational defeat. The more fundamental problem, which can not be resolved by tactical innovations, is NATO's focus on war at the corps level and below. NATO's problem at the operational level of war is to forge unity from diversity. For a look at the NATO and Soviet approaches to theater war see: John Hines and Philip Petersen, 'Is NATO Thinking too Small? A Comparison of Command Structures', International Defense Review, No. 5, (May 1986), pp. 563-572.

72. William P. Baxter, Soviet AirLand Battle Tactics (San Francisco: Presidio Press, 1986), pp. 28-32.

73. Strengthening Conventional Deterrence in Europe pp. 7-12.

74. Ibid., pp. 243-252. For an assessment of the various weapons systems see: Per Berg and Gunilla Herolf, 'Deep Strike': New Technologies for Conventional Interdiction', in: SIPRI Yearbook pp. 291-318.

75. Arie van der Vlis, 'AirLand Battle in NATO', Parameters XIV, No. 2, (Summer 1984), pp. 10-11; Rik Coolsaet, 'NATO Strategy under Different Influences', ADIU Report, 6, No. 6, (November-December 1984), pp. 4-8; and D. T. Flesch, 'AirLand Battle & NATO's Military Posture', ADIU Report, (March-April), pp. 7-11.

76. Samuel P. Huntington, 'Conventional Deterrence and Conventional Retaliation in Europe', International Security, 8, No. 3, (1983/1984), pp. 32-56. Huntington's article received quick attention from The New York Times, when the paper's military correspondent, Drew Middleton, devoted an article to it as part of efforts to change NATO strategy. See: The New York Times, (February 5, 1984), p. 18. In the summer of 1983 at least one author identified the Rogers Plan, as opposed to AirLand Battle, with deep strikes by ground forces, either a specially-tailored brigade in each corps or a high-technology, light division, across the Inter-German Border. See: G. Schepe, 'The Rogers Plan and the Concept of "Deep Battle" on the Central Front', Canadian Defence Quarterly, 13, No. 1, (Summer 1983), pp. 30-33.

77. Huntington, pp. 32-35.

78. Ibid., pp. 47-50.

79. John Erickson, The Road to Berlin (Boulder, Colorado: Westview Press, 1983), pp. 508-517.

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80. Donn A. Starry, 'The Evolution of US Army Operational Doctrine - Active Defense, AirLand Battle, and Future Trends', in: Lars B. Wallin, ed., Proceedings of a Symposium on Military Doctrine for Central Europe (Stockholm, June 5-6, 1984) (Stockholm: The Swedish National Defence Research Institute, 1986), p. 55.
81. Huntington, p. 50.
82. The New York Times, (November 14, 1984), p. 3.
83. Starry, 'The Evolution of US Army Operational Doctrine - Active Defense, AirLand Battle, and Future Trends', p. 60.
84. Bernard Rogers, 'Follow-On Forces Attack (FOFA): Myths and Realities', NATO Review, 32, No. 6, (December 1981), pp. 1-9.
85. James A. Tegnalia, 'Emerging Technology for Conventional Deterrence', International Defense Review, No. 5 (May 1985), pp. 647-652.
86. Daniel Goure and Jeffrey R. Cooper, 'Conventional Deep Strike: A Critical Look', Comparative Strategy, 1, No. 3, (1981), pp. 215-248; Fen Osler Hampson, 'Groping for Technical Panaceas: The European Conventional Balance and Nuclear Stability', International Security, 8, No. 3, (1984), pp. 57-82; and James M. Garrett, 'Conventional Force Deterrence in the Presence of Theater Nuclear Weapons', Armed Forces and Society, 11, No. 1, (Fall 1984), pp. 59-84.
87. Steven L. Canby, 'The Conventional Defense of Europe. Part I: The Solution is Operational Reserves', in: Wallins, Proceedings of a Symposium on Military Doctrines for Central Europe . . ., pp. 96-105.
88. Steven Canby, 'The Operational Limits of Emerging Technology', International Defense Review, No. 6, (June 1985), pp. 875-881.
89. Ibid., pp. 880-881.
90. Ibid. p. 881. See also: Michael Howard, 'Men Against Fire: Expectations of War in 1914', International Defense Review, 9, No. 1, (Summer 1984), pp. 41-57.
91. Mearsheimer, Conventional Deterrence, pp. 2-36.
92. Vigor, Soviet Blitzkrieg Theory, pp. 1-62.
93. Voennyi entsiklopedicheski slovar' (Moscow: Voenizdat, 1983), p.455. Regarding Soviet views on the connections between military doctrine and strategic adventurism see also: Ogarkov,

Istoriia uchit bditel'nosti, pp. 59-71.

91. M. Zakharov, "Molnienosnala operatsiia (Iz opyta 2-go Ukrainского fronta v Iassko-Kishinevskoi operatsii)," Voenno-istoricheskii zhurnal, No. 8, (August 1964), pp. 15-28.

95. David M. Glantz, August Storm: The Soviet Strategic Offensive in Manchuria, 1945 in: Leavenworth Paper No. 7 (Ft. Leavenworth, Kansas: Combat Studies Institute, US Army Command and General Staff College, 1983); and August Storm: The Soviet Tactical and Operational Combat in Manchuria, 1945 in: Leavenworth Paper No. 8 (Ft. Leavenworth, Kansas: Combat Studies Institute, US Army Command and General Staff College, 1983).

96. Benjamin Lambeth, "Uncertainties for the Soviet War Planners,": in: Steven E. Miller, ed., Conventional Forces and American Defense Policy (Princeton: Princeton University Press, 1986), pp. 159-186. On the contradictions affecting the Warsaw Pact as a political alliance see: David Holloway and Jane M. O. Sharp, eds., The Warsaw Pact: Alliance in Transition (Ithaca: Cornell University Press, 1984). For a prudent assessment of Soviet efforts to adapt Warsaw Pact to bring about greater military-political cohesion through pact institutions and exercises see: Simon, Warsaw Pact Forces: Problems of Command and Control.

97. Howard, 'The Future of Deterrence', p. 4.

98. Ogarkov, Istoriia uchit bditel'nosti pp. 68-95.

99. V. G. Reznichenko, ed., Taktika (Moscow: Voenizdat, 1981), pp. 14-18, 91-92.

100. M. Belov and V. Shchukin, 'Razvedyvatel'no-porazhailushchie komplekсы armii SShA', Voennyi vestnik, No. 1, (January 1985), pp. 86-90; and S. V. Grishin and N. N. Tsalenko, Soedineniia i shasti v boiu (Moscow: Voenizdat, 1985), pp. 32-40, 45-50.

101. For a discussion of the need for expanded discussions between US and Soviet military leaders see: Wade J. Williams, 'Expanding the US-USSR Military Dialogue', in: Barry M. Blechman, ed., Preventing Nuclear War: A Realistic Approach (Bloomington: Indiana University Press, 1985), pp. 145-160.

102. Richard E. Simkin, Race to the Swift: Thoughts on Twenty-First Century Warfare (London: Brassey's Defense Publishers, 1985).

103. Ogarkov, Vsegda v gotovnosti k zashchite otchestva, p. 11.

104. Ogarkov, Istoriia uchit bditel'nosti, pp. 40-54.